

CLAIMS

1. A soy-containing fermented product comprising fermented soy milk prepared by fermenting decaffeinated soy milk, wherein the decaffeinated soy milk is prepared by a method comprising:

(a) obtaining a soy milk composition containing soluble soy proteins, flavoring compounds, and insoluble materials;

(b) solubilizing the soy proteins by adjusting the soy milk composition of (a) to a pH in the range of about 9 to about 12 and releasing the flavoring compounds;

(c) passing the pH-adjusted soy milk composition of (b) adjacent an ultrafiltration membrane having a molecular weight cutoff up to about 50,000 Daltons, while maintaining the pH in the range of about 9 to about 12, under suitable ultrafiltration conditions wherein the flavor compounds pass through the membrane, thereby decaffeinating the soy milk composition and retaining substantially all of the solubilized soy proteins; and

(d) recovering the solubilized soy proteins retained by the ultrafiltration membrane, wherein the recovered solubilized soy proteins is the decaffeinated soy milk.

2. The soy-containing fermented product of claim 1, wherein the soy-containing fermented product is a soy-containing yogurt.

3. The soy-containing fermented product of claim 1, wherein the aqueous composition of (a) has a concentration of soy material in the range of about 1 to about 20 percent.

4. The soy-containing fermented product of claim 2, wherein the aqueous composition of (a) has a concentration of soy material in the range of about 1 to about 20 percent.

5. The soy-containing fermented product of claim 1, wherein the ultrafiltration membrane has a cutoff in the range of about 1,000 to about 50,000 Daltons.

6. The soy-containing fermented product of claim 5, wherein the ultrafiltration membrane has a cutoff in the range of about 10,000 to about 30,000 Daltons.

7. The soy-containing fermented product of claim 2, wherein the ultrafiltration membrane has a cutoff in the range of about 1,000 to about 50,000 Daltons.

8. The soy-containing fermented product of claim 7, wherein the ultrafiltration membrane has a cutoff in the range of about 10,000 to about 30,000 Daltons.

9. The soy-containing fermented product of claim 5, wherein the ultrafiltration is carried out at a temperature in the range of about 10 to about 60°C and a suitable pressure.

10. The soy-containing fermented product of claim 9, wherein the ultrafiltration membrane is a polymer, ceramic, or inorganic membrane.

11. A method of preparing a soy-containing fermented product, said method comprising

(1) preparing a mixture of deflavored soy milk material and an effective amount of a starter culture; and

(2) fermenting the mixture to form the soy-containing fermented product;

wherein the deflavored soy milk material is prepared by a method comprising:

(a) obtaining a soy milk composition containing soluble soy proteins, flavoring compounds, and insoluble materials;

(b) solubilizing the soy proteins by adjusting the soy milk composition of (a) to a pH in the range of about 9 to about 12 and releasing the flavoring compounds;

(c) passing the pH-adjusted soy milk composition of (b) adjacent an ultrafiltration membrane having a molecular weight cutoff up to about 50,000 Daltons, while maintaining the pH in the range of about 9 to about 12, under suitable ultrafiltration conditions wherein the flavor compounds pass through the membrane, thereby deflavoring the soy milk composition and retaining substantially all of the solubilized soy proteins; and

(d) recovering the solubilized soy proteins retained by the ultrafiltration membrane, wherein the recovered solubilized soy proteins is the deflavored soy milk material.

12. The method of claim 11, wherein the soy-containing fermented product is a soy-containing yogurt.

13. The method of claim 11, wherein the mixture of deflavored soy milk material and the starter culture contains at least one additive selected from the group consisting of flavors, nutritional additives, fruits, colorants, and processing aids.

14. The method of claim 12, wherein the mixture of deflavored soy milk material and the starter culture contains at least one additive selected from the group consisting of flavors, nutritional additives, fruits, colorants, and processing aids.

15. The method of claim 11, wherein the pH of the deflavored soy milk is adjusted to about 3 to about 7 prior to fermentation.

16. The method of claim 12, wherein the pH of the deflavored soy milk is adjusted to about 3 to about 7 prior to fermentation.

17. The method of claim 11, wherein the ultrafiltration membrane has a cutoff in the range of about 1,000 to about 50,000 Daltons.

18. The method of claim 12, wherein the ultrafiltration membrane has a cutoff in the range of about 1,000 to about 50,000 Daltons.

19. The method of claim 17, wherein the ultrafiltration is carried out at a temperature in the range of about 10 to about 60°C and a suitable pressure and wherein the ultrafiltration membrane is a polymer, ceramic, or inorganic membrane.

20. The method of claim 18, wherein the ultrafiltration is carried out at a temperature in the range of about 10 to about 60°C and a suitable pressure and wherein the ultrafiltration membrane is a polymer, ceramic, or inorganic membrane.